

# AutoStep™



## User Manual

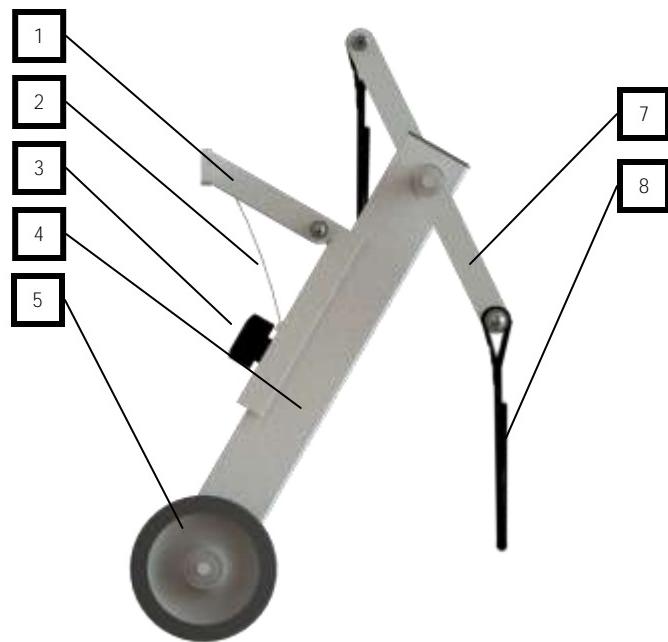


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# **AutoStep™** Diagram

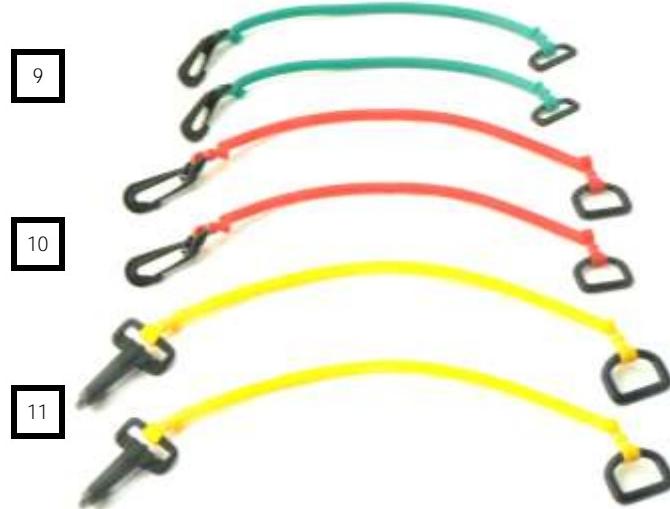
1. Bracket
2. Bracket Spring
3. Height Adjustment Knob
4. Frame Assembly
5. Active Module
6. Active Module Wheel
7. Active Module Crank
8. Active Module Crank Strap



*NOTE: Your AutoStep™ may differ from image above*

## Elastic Inserts

9. 6 lbs Elastic Inserts
10. 5 lbs Elastic Inserts
11. 4 lb Elastic Inserts



## Straps

12. Foot Straps
13. Ankle Straps



*NOTE: Your Auto-Step and Accessories may differ from images above*

# About Your *AutoStep*

AutoStep™ is comprised of several parts.

**ADJUSTABLE BRACKET:** Each AutoStep™ bracket is specific to each LiteGait® model. The bracket attaches AutoStep™ securely to the frame of the LiteGait. Most LiteGaits ordered with AutoStep™ utilize a universal bracket and include threaded inserts in the LiteGait® base .



Versions of the AutoStep™ that are retrofit to LiteGait®'s without the threaded inserts utilize the bolts that secure the post or actuator to the LiteGait® base.



LiteGait® WalkAble and LiteGait® MX models utilize a bracket that wraps around the post of the LiteGait® similar to the LiteGait® Handle Bars.

**ACTIVE MODULE** The Active Module is a wheeled structure that captures the horizontal movement of the device or the walking surface and transfers it to reciprocal movement of crank arms. Each active module crank arm has a strap attachment which is designed to allow the arm to rotate freely while the strap is under tension. Each strap has a self-connecting Velcro end for grabbing the D-ring of the elastic insert.

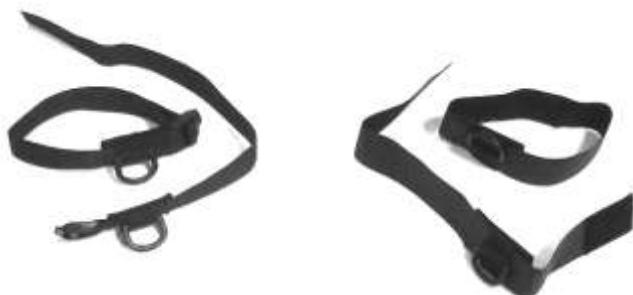


**ELASTIC INSERTS** *Elastic Insert* – Nearly a foot long, the elastic insert has a D-ring on one end and a Carabineer style mechanism at the other end. Its flexibly connects the strap of the crank arm to the foot, ankle, or knee. Elastic Inserts come in pairs and are color coded for their resistance to stretch.



Each color is marked with the force it takes to stretch it to double its 12 inch length (or a measure of its stiffness). The heavier the user the larger force build-up is needed to assist with the swinging leg (i.e. a higher stiffness). The elastic insert maybe added in parallel to increase the stiffness and hence the swing-assist force.

**FOOT/ANKE STRAPS** Adjustable band tightens around mid-section of foot, around ankle, or below the knee. Its D-ring aligned with the middle of foot or ankle provides a base for elastic insert to hook on to. There are two for the foot with ladder lock buckles and two for the ankle with Velcro.



# **AutoStep™ Installation**

## **Universal AutoStep™ Bracket for LiteGait®**

Assembly Instructions:

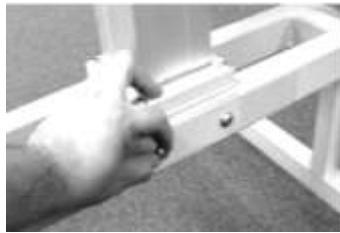
Read below & follow pictures.

Tools Required:

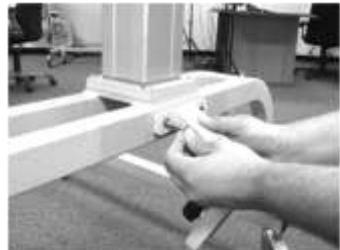
7/16 inch Allen wrench

**NOTE:** If you have any questions during installation, please contact Mobility Research Technical Support for assistance.

1. Loosen bolts on base using 7/16 Allen wrench to prepare for AutoStep™ installation.



2. Align holes on AutoStep™ bracket with threaded inserts on base. Hand Tighten Bolts into threaded inserts to attach bracket.



3. Tighten bolts using 7/16 inch Allen wrench.



4. Determine the Active Module you will determine by the users stride length (12, 18, or 21 inches)
4. Determine the Active Module you will determine by the users stride length (12, 18, or 21 inches)



5. Loosen knob and Insert Active Module



6. Align the Active Module with the metal glider; slide the module into the bracket.



7. Position active module according to "Using AutoStep™" section of manual.



8. Tighten the knob to secure against bracket.



## AutoStep™ Bracket for LiteGait® I and LiteGait® Jr.

Assembly Instructions:

Read below & follow pictures.

Tools Required:

5/16 inch Allen wrench

**NOTE:** If you have any questions during installation, please contact Mobility Research Technical Support for assistance.

1. Loosen four bolts approximately 1/4 inch on base using 5/16 Allen wrench to prepare for AutoStep™ installation.



2. Hold actuator to prevent it from tilting forward. Excessive tilt can cause severe damage.



3. Hold the bracket and tighten each bolt.



4. Determine the Active Module you will determine by the users stride length (12, 18, or 21 inches)
4. Determine the Active Module you will determine by the users stride length (12, 18, or 21 inches)



5. Loosen knob and Insert Active Module



6. Align the Active Module with the metal glider; slide the module into the bracket.



7. Position active module according to "Using AutoStep™" section of manual.



8. Tighten the knob to secure against bracket.



## AutoStep™ Bracket for LiteGait® I and LiteGait® Jr.

Assembly Instructions:

Read below & follow pictures.

Tools Required:

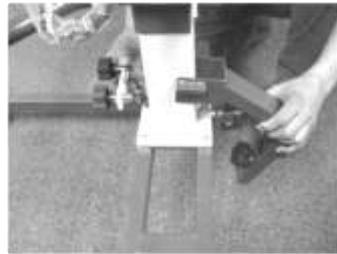
No Tools Required

NOTE: If you have any questions during installation, please contact Mobility Research Technical Support for assistance.

1. Loosen the knobs securing the plate to the AutoStep™ bracket



2. Position bracket around the post of the LiteGait® with knobs facing toward the patient



3. Align the plate and tighten the knobs.



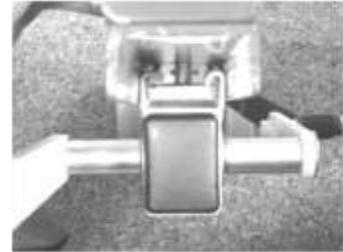
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5. Loosen knob and Insert Active Module



6. Align the Active Module with the metal glider; slide the module into the bracket.



7. Position active module according to "Using AutoStep™" section of manual.



8. Tighten the knob to secure against bracket.

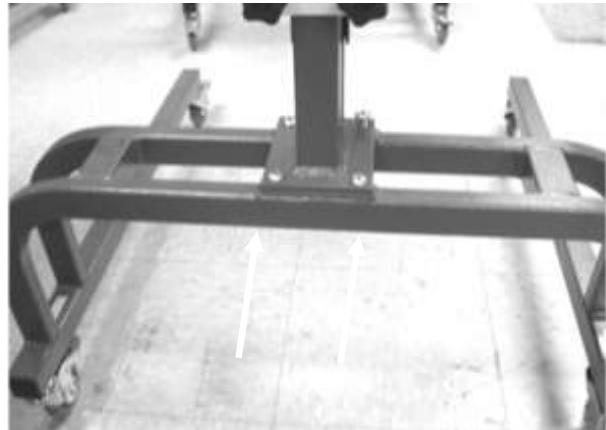
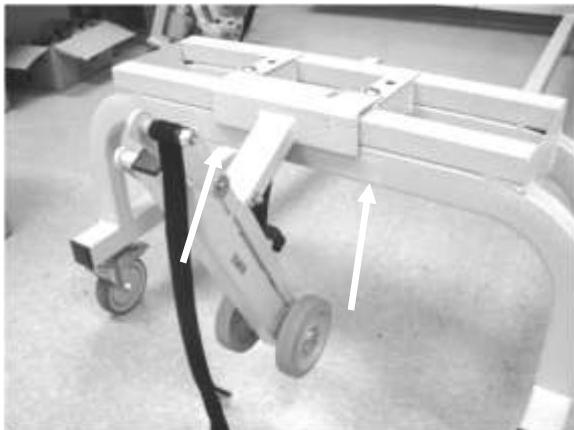


## Installation of AutoStep™ (Glider Tape)

Under certain conditions the elastic insert may be rubbing against the back lower edge of the base. The smooth Glider Tape reduces the wear on your elastic insert.

1. Clean and dry the area that the 4" Glider Tape will attach to (marked with arrows).
2. Peel the paper off the back of the tape.

Place the glider tape on the base so that the bottom back edge of the base is covered.



NOTE: there must be 4 inches between glider tapes. The glider tapes will be symmetrically positioned relative to the post or the lift column.

# Using Your *AutoStep*

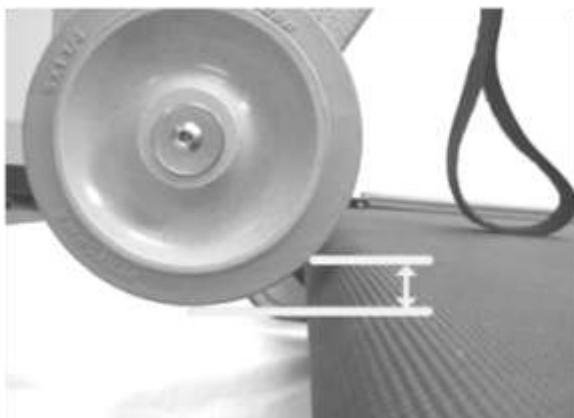
## I. Adjusting Height for Ground Use

The wheels of the Active Module must be under compressive force against the walking surface. Turn the knob to loosen the active module. Adjust height of active column to reach the ground. Push down on the module and tighten knob. If you are unable to apply adequate force, raise the LiteGait® casters by half an inch using spacers before adjusting. Once off spacers, the difference in height should provide the necessary force.



## II. Adjusting Height for Treadmill Use

Adjust Active Module height so that the wheels are  $\frac{1}{2}$ " to  $\frac{3}{4}$ " below the surface of the treadmill. Push LiteGait® On to treadmill, the spring will be loaded to push wheels down and keep the wheel in contact with the treadmill belt. Lock casters to make the LiteGait® stationary before turning the treadmill on.



## III. Applying AutoStep™ Straps

### 1. Adjust the Crank Arm

Adjust the crank arm corresponding to the leading foot to point down slightly toward the use (approximately 5 to 10 degrees). For ground use, roll the device over ground to change the angle. For use with a treadmill, prior to applying straps to the user.



### 2. Foot / Ankle Straps

Put on the appropriate foot or ankle straps on the patient. Foot Straps attach to the mid foot to assist the patient's ankle during the step. Shoe laces, if any, work similarly. Ankle Straps are placed just above the ankle. Attach the foot straps to mid foot and tighten by pulling the strap. Make sure the loose end is on the outside of the foot.



### 3. Leading Foot Forward

Start with the patient in a neutral double-stance position. Place the leading foot ahead approximately **half of the step length (i.e. 6" for a 12" Active Module)**.



#### 4. No Slack & No Tension

Connect Carabineer style clip of the Elastic Insert to D-ring of the foot/ankle strap of the leading foot. Thread the crank arm strap through the D-ring of the Elastic Insert. The Velcro strap should then be adjusted (looped through the D-ring and connected back to itself) such that there is NO slack in the crank arm strap or Elastic Insert, yet minimal tension.

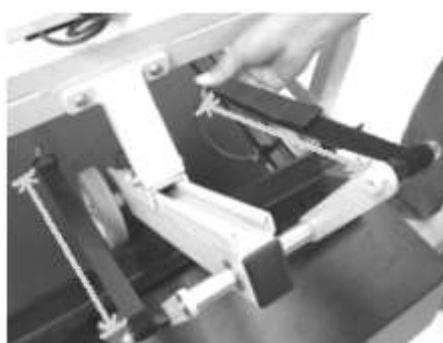


**NOTE:** If the patient is forced into short steps, which is demonstrated by insufficient extension of the hip, then the active module needs to be changed to a increased step length. If the force stored in the elastic insert is insufficient to help the patient with the swing phase, which is demonstrated by a delayed swing causing the patient to lean forward, increase the stiffness or number of Elastic Inserts.



#### 5. Connect the Elastic Insert

Repeat the last step for the other foot. Or, make the crank arm strap for the trailing foot approximately the same length as the leading foot. Connect the Carabineer style clip of the second Elastic Insert to the D-ring of the foot/ankle strap of the trailing foot. There will be tension in the Elastic Insert when attached.



Once the movement starts, the trailing foot, which is currently behind the leading foot, will take the first step.



# Resource Directory

PHONE:

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1.800.332.WALK (9255)  
Toll free in U.S. and Canada

FAX:

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480.829.0737

WEBSITE:

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[www.LiteGait.com](http://www.LiteGait.com)  
[www.LiteGait.org](http://www.LiteGait.org)

EMAIL DIRECTORY:

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Technical Support  
Clinical Support  
Education Department  
Sales Department

[TechnicalSupport@LiteGait.com](mailto:TechnicalSupport@LiteGait.com)  
[ClinicalSupport@LiteGait.com](mailto:ClinicalSupport@LiteGait.com)  
[Education@LiteGait.com](mailto:Education@LiteGait.com)  
[Sales@LiteGait.com](mailto:Sales@LiteGait.com)

POSTAL ADDRESS:

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Mobility Research  
P.O. Box 3141  
Tempe, AZ 85280



products, education, and rehabilitation solutions  
FREEDOM FOR THERAPISTS INDEPENDENCE FOR PATIENTS

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## Limited Warranty Certificate Accessories

The Mobility Research warranty covers the following parts only for 1 year against all defects.<sup>†</sup>

- 90 days full replacement warranty
- 1 year on welds and electromechanical parts (excludes wear and tear items, i.e. batteries, soft goods and wheels)

Losses due to work stoppage, lost revenues, damages due to neglect or abuse ARE NOT covered by this warranty.  
Shipping and handling charges ARE NOT covered by this warranty.<sup>†</sup>

THIS WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. MOBILITY RESEARCH SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF MOBILITY RESEARCH INC. CANNOT LAWFULLY DISCLAIM IMPLIED WARRANTIES UNDER THIS LIMITED WARRANTY, ALL SUCH WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESSFOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. NO MOBILITY RESEARCH RESELLER, AGENT, OR EMPLOYEE IS AUTHORIZED TO MAKE ANY MODIFICATION, EXTENSION OR ADDITION TO THIS WARRANTY. MOBILITY RESEARCH IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOST PROFITS, DOWNTIME, GOODWILL, OR DAMAGE TO EQUIPMENT AND PROPERTY.

<sup>†</sup> Warranty excludes damage due to normal wear and tear, tampering with any components, from misuse and abuse, caused by cleaning and acts of God. Warranty does not cover losses due to work stoppage, lost revenue(s), and damages due to neglect. Warranty excludes GaitKeeper Treadmills. Shipping and handling charges are not covered by this warranty. Tampering by persons other than Mobility Research factory authorized personnel is discouraged and will void your warranty.

*In order for us to provide the very best in customer support, please activate your warranty by providing the following information. This information will allow us to notify you for product updates, recall information, clinical support, technical support, maintenance information and to receive our E-Newsletter. You may visit our website at <http://www.litegait.com/warranty.html> and submit this form or fill in the information below and mail or fax back. (Keep a copy for your records)*

Model	Serial number	Date of purchase
Facility Name:		Dept. used in
Address		Phone (      )
		Fax (      )
Clinical Contact Name		email
Maintenance Contact Name		email



### Products, Education, and Rehabilitation Solutions

Mobility Research Inc., P. O. Box 3141, Tempe AZ 85280

Phone: 1-800-332-9255 / 480-829-1727 Fax: 480-829-0737

Email: [warranty@LiteGait.com](mailto:warranty@LiteGait.com)

